



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/373,837	08/13/1999	METIN AYDEMIR	RA999-005	2996

25299 7590 02/12/2003

IBM CORPORATION  
PO BOX 12195  
DEPT 9CCA, BLDG 002  
RESEARCH TRIANGLE PARK, NC 27709

EXAMINER

PHILIP, NOBEL A

ART UNIT PAPER NUMBER

2697

DATE MAILED: 02/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/373,837

Applicant(s)

AYDEMIR ET AL.

Examiner

Nobel Philip

Art Unit

2697

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 11 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-18 and 21-25 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

1. The abstract of the disclosure is objected to because in line 6, the term "said" should be avoided. Correction is required. See MPEP § 608.01(b).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9-18, and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fichou et al. (U.S. Patent No. 5,790,522) in view of Diaz et al. (U.S. Patent No. 5,809,021).

- Referring to claims 1, 9-13, and 21-25, Fichou discloses a method for congestion control within a switch having at least one input section that includes

an input buffer (i.e. receive adapters with buffers 42, shown in Figure 4). The data is transmitted from the input section to an output section through a switching fabric (col. 6, lines 13-31) and data transmission is paused when congestion is detected within the switching fabric or output section (col. 8 lines 2-6). Fichou does not expressly disclose determining the input buffer occupancy during the pause, defining threshold levels for input buffers during the pause, and delaying the restart of transmission in accordance with the input buffer occupancy. Diaz discloses determining the input buffer occupancy during the pause (check input buffer occupancy, col. 23 lines 14-18), defining threshold levels for input buffers (determine whether it is above or below threshold, col. 23 lines 18-19) and delaying the restart of transmission in accordance with the input buffer occupancy (terminate backoff time period according to the input buffer threshold, col. 23 lines 18-22). It is the examiner's position that by definition, having a threshold defines a high level (above threshold) and a low level (below threshold). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to determine the input buffer occupancy during the pause, define threshold levels for input buffers, and delay the restart of transmission in accordance with the input buffer occupancy. One of ordinary skill in the art would have been motivated to do this to improve the prevention of packet loss during congestion periods.

- Referring to claims 2 and 14, Fichou further teaches that the data switch contains an output buffer (queue) and a backpressure signal generator within the switch fabric used when switch congestion is detected (col. 5 lines 15-20, 30-32).

- Referring to claims 3 and 15, Fichou further teaches a backpressure signal indicates the existence of congestion conditions (col. 8 lines 26-27).

- Referring to claims 4 and 16, Fichou further discloses that data transmission is paused when a backpressure signal is received, meaning congestion is detected (col. 8 lines 2-6).

- Referring to claims 5 and 17, Fichou further teaches that in practice, congestion is detected when output queue is full, meaning high level of occupancy (col. 5 lines 15-18).

- Referring to claims 6 and 18, Fichou further discloses that in practice, the output buffer is monitored and when congestion is detected, a congestion indication signal is generated (backpressure) and delivered to input section, which pauses data transmission (col. 5 lines 15-18).

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2697

*Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Fukano et al. U.S Patent No. 5,774,453 discloses an input/output buffer type ATM switch.
- b) Cordell U.S. Patent No. 5,367,520 discloses a method and system for routing cells in an ATM switch.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nobel Philip whose telephone number is 703-305-8395. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 703-305-4798.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, DC 20231

**or faxed to:**

(703) 305-3988, (for formal communications intended for entry)

**Or:**

(703) 305-3988, (for informal or draft communications, please label

Application/Control Number: 09/373,837

Page 6

Art Unit: 2697

“PROPOSED” or “DRAFT”)

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Nobel Philip  
January 28, 20033

RICKY NGO  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Ricky Ngo', with a long horizontal flourish extending to the right.